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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,559	12/21/2004	Tadashi Okamoto	1232-5564	8048

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EXAMINER

BHAT, NARAYAN KAMESHWAR

ART UNIT	PAPER NUMBER
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1634

NOTIFICATION DATE	DELIVERY MODE
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01/26/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOPatentCommunications@Morganfinnegan.com
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<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	Application No. 10/518,559	Applicant(s) OKAMOTO, TADASHI	
	Examiner NARAYAN K. BHAT	Art Unit 1634	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 02 December 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 5 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: None.
 Claim(s) objected to: None.
 Claim(s) rejected: 1-5, 8-11, 13-15, 24, 27-29, 32-35, 37 and 38.
 Claim(s) withdrawn from consideration: 12, 16-23, 25, 26 and 36.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
 12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____.
 13. ☐ Other: _____.

/Ram R. Shukla/
Supervisory Patent Examiner, Art Unit 1634

Continuation of 11. does NOT place the application in condition for allowance because: claims 1-5, 8-11, 13-15, 24, 27-29, 32-35 and 37-38 have been rejected under 35 USC § 103 as unpatentable over O'Donnell et al, Heckman et al and Marriott et al as described in the final office action mailed on July 24, 2008. Applicant's arguments filed on December 12, 2008 have been fully considered and are not persuasive for the reasons listed below.

Claim Rejections - 35 USC § 103:

Applicants argue that O'Donnell et al alone or in combination with Heckman and Marriott does not disclose each and every step of the claimed method (Remarks, pg. 3, paragraph 2, and lines 1-2). This argument is not persuasive because as described in the final office action, O'Donnell et al, Heckman et al and Marriott et al teaches each and every step of the claimed method.

Applicants further argue that the compound analyzed by Mass spectroscopy in O'Donnell et al is not the immobilized DNA strand but the annealed strand, which detaches under mass spectroscopic conditions and the Examiner is erroneous in alleging that 'O'Donnell teaches analyzing the mass spectrum of the substance which was brought in an unfixed state by disconnecting the partial structure by the irradiation of light (Remarks, pg. 3, paragraph 2, lines 13-19). This argument is not persuasive as discussed below.

- a) O'Donnell et al explicitly teaches photocleavable linkers to immobilize nucleic acids on the substrate (pg. 33, lines 12-17) and releasing the nucleic acids by exposure to light (pg. 34, paragraph 2) and detecting the nucleic acids by mass spectrometry (pg. 84, paragraph 2).
- b) Teachings of O'Donnell et al in Fig. 17 is relied for illustrative purpose only for the of a mass spectrum of a nucleic acids in general and are not relied on to show the mass spectrum of the substance which is brought in an unfixed state.
- c) Applicants have asserted in the response filed on April 21, 2008 that O'Donnell et al is directed to a process for immobilizing a high density of nucleic acids on an insoluble surface useful for mass spectrometric detection.
- d) As described in the final office action in section 5, Applicants have re-asserted that O'Donnell et al teaches analysis of nucleic acid by Mass Spectrometry (Remarks, pg. 3, paragraph 2, and lines 17-19).
- e) It is also noted that a prior art reference is considered as a whole and for all it stands for. Additional citation of the teachings of O'Donnell et al as described above are solely for the purpose of clarity, the rejections of the claims are maintained for the reasons of record. Since O'Donnell et al teaches the analysis of immobilized nucleic acids by mass spectrometry as described in section 'a' arguments are not persuasive.

Applicants further reiterates the argument that combination of O'Donnell et al Heckman et al and Marriott et al does not make obvious the claimed invention and further argues that O'Donnell does not teach the formula II compound (pg. 4, paragraphs 2 and 3). This argument is not persuasive because Applicants have asserted in the response filed on April 21, 2008 that teachings of Heckman et al directed to succinimidyl 6-(4-bromomethyl-3-nitrobenzoyl) aminohexanoate compound within the scope of Formula II.

Furthermore, as described in the final office action, O'Donnell et al teaches the photocleavable linker comprising nitrobenzene group. Heckman et al teaches linker representing formula II compound as a photocrosslinking linker comprising nitrobenzene group. Marriott et al provides how to use photocross linking linker comprising nitrobenzene group as a photocleavable linker and provides motivation to use photocross linking linker as a photocleavable linker. Since linker taught by O'Donnell et al, Heckman et al and Marriott et al comprises nitrobenzene group and essential for the photoinduced cleavage (Marriott et al, Fig. 1b), therefore would be obvious one having the skill in the art to use linker of Heckman et al as photocleavable linker and therefore arguments are not persuasive.

The recent Supreme Court decision in KSR Intl. Co. v. Teleflex Inc. rejected the rigid approach of applying a strict TSM test as the sole basis for obviousness and that the analysis for obviousness need not seek out precise teachings directed to the specific subject matter of a claim. Further the decision set forth that the analysis can take into account the inferences and creative steps that a person of ordinary skill in the art could employ and that a person of ordinary skill in the art is also a person of ordinary creativity, not an automaton. Further, the decision set forth that a combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. In the instant case, claimed method steps and formula II compound were known in the art at the time of the claimed invention was made. Applicants have asserted that O'Donnell teaches recited steps in the independent claims 1, 15, 24 and 27 except for the formula II compound, which is taught by Heckman et al and Marriott et al provides the teachings, suggestions and motivation to use the photocross linking linker of Heckman et al as a photo-cleavable linker and therefore arguments are not persuasive.

Applicants further argue that Heckman et al teaches cross linking occurs at UV wavelength > 300 nm, while photo induced cleavage occurs at around 350 nm and skilled artisan would be perplexed about what would happen under UV irradiation as two alleged photoreactions would be competing against each other (Remarks, pg. 5, paragraphs 1 and 2). This argument is not persuasive because Heckman et al teaches cross linking occurs at 312 nm (column 12, line 22). Marriott et al teaches photocross linked product is photo-cleaved at 320-400 nm (Fig. 1b), thus teaching photocross linked product are also photo cleaved. Therefore a skilled artisan won't be perplexed about photocross linking and photo cleavage competing against each other and would be motivated to use the photocrosslinker for further photo-induced cleavage using longer wave length of light to disconnect from the substrate. Since Marriott et al provide the teachings, suggestion and motivation, Applicants arguments regarding lack of suggestion and teachings to modify the references are not persuasive.

Applicants further argues that the Examiner must view cited art as a whole and cannot ignore the teachings of Heckman et al and further cites MPEP 2143.01, which clearly states the proposed modification of the prior art cannot change the principle of operation of the primary references or the references inoperable for its intended use (Remarks, pg. 5, paragraph 3). This argument is not persuasive because, MPEP 2143.01 citation is for suggestion or motivation to modify the references. MPEP 2141.02 provides guidance for "Differences between Prior Art and Claimed Invention". As described in the final office action in detail instant claims are rejected using combination of three references (O'Donnell et al, Heckman et al and Marriott et al) and when considered in their entirety, makes the claimed invention

obvious over the prior art . Furthermore as explained in the previous paragraphs and final office action linker of Heckman does not change the invention of O'Donnell et al but provides a stable photo-cleavable photocrosslinker that can be used as photocleavable linker. Furthermore, Applicants have ignored the teachings of Marriott et al, thus used piece meal analysis of the references, while the rejections are based on the combination references and therefore arguments are not persuasive.

Applicants remaining arguments regarding linker of Heckman and combination references are reiterative (Remarks, pg. 6, paragraphs 1 and 2) and arguments are not persuasive for the same reasons described above.